

Amendments to the Claims

1. (Original) A coating composition comprising:

(A) 100 weight parts of (i) at least one compound containing at least one acrylate group or (ii) at least one compound containing at least one isocyanate group;

(B) 3-300 weight parts of at least one aminofunctional silicone resin comprising the units:

$(R_3SiO_{1/2})_a$ (i)

$(R_2SiO_{2/2})_b$ (ii)

$(RSiO_{3/2})_c$ (iii) and

$(SiO_{4/2})_d$ (iv)

wherein R is independently an alkyl group, an aryl group, or an aminofunctional hydrocarbon group, a has a value of less than 0.4, b has a value of zero or greater than zero, c has a value of greater than zero to 0.7, d has a value of less than 0.3, the value of $a + b + c + d = 1$, with the provisos that 3 to 50 mole percent of silicon atoms contain aminofunctional hydrocarbon groups in units (i), (ii) or (iii), the -NH- equivalent weight of the aminofunctional silicone resin is from 100 to 1500, the aminofunctional silicone resin is in the form of a neat liquid, solution, or meltable solid, greater than 20 weight percent of unit (ii) is present in the aminofunctional silicone resin, less than 10 weight percent of unit (ii) are $Me_2SiO_{2/2}$ units in the aminofunctional silicone resin, and greater than 50 weight percent of silicon-bonded R groups are silicon-bonded aryl groups, and at least 30 weight percent of all silicon atoms contain an aryl group;

(C) up to 300 weight parts of at least one organic hardener; and

(D) up to 5 weight parts of at least one cure rate modifier.

2. (Canceled)

3. (Currently Amended) A composition according to Claim 1-~~or~~-2, wherein component

(A) is selected from urethane acrylates, acrylated fluorocarbons, soybean oil acrylates, epoxy acrylates, pentaerythritol triacrylate, glycidyl acrylate, isophorone diisocyanate trimers, isophorone diisocyanate, toluene diisocyanate, polyisocyanates, tetramethylxylylene diisocyanate, phenylene diisocyanate, xylene diisocyanate, 1,5-naphthalene diisocyanate, chlorophenylene 2,4-

diisocyanate, bitoluene diisocyanate, dianisidine diisocyanate, toluidine diisocyanate, alkylated benzene diisocyanates, methylene-diphenyl-diisocyanate, 3,3'-dimethyl-4,4'-diphenyl-methane diisocyanate, cyclohexylene diisocyanate, 4,4'-methylenedicydohexyl diisocyanate, tetramethylxylyl diisocyanates, OCN—C(CH₃)₂—C₆H₄C(CH₃)₂—NCO, isophorone diisocyanate, 1,4-tetramethylene diisocyanate, 1,5-pentamethylene diisocyanate, 1,6-hexamethylene diisocyanate (HMDI), 1,7-heptamethylene diisocyanate, 2,2,4- and 2,4,4-trimethylhexamethylene diisocyanate, 1,10-decamethylene diisocyanate, or 2-methyl-1,5-pentamethylene diisocyanate.

4. (Currently Amended) A composition according to ~~any of Claims 1—3~~ wherein R is independently selected from methyl, phenyl, or an aminofunctional hydrocarbon group having the formula —R¹NHR² or —R¹NHR¹NHR² wherein each R¹ is independently a divalent hydrocarbon radical having at least 2 carbon atoms and R² is hydrogen or an alkyl group.

5. (Currently Amended) A composition according to Claim 1 wherein ~~any of Claims 1—4~~ wherein Component (B) is selected from aminofunctional silicone resins comprising the units:

- (i) ((CH₃)₃SiO_{1/2})_a
- (ii) (C₆H₅(CH₃)SiO_{2/2})_b
- (iii) ((CH₃)RSiO_{2/2})_b where R = -CH₂CH₂CH₂NH₂
- (iv) (C₆H₅SiO_{3/2})_c,

aminofunctional silicone resins comprising the units:

- (i) (C₆H₅(CH₃)SiO_{2/2})_b
- (ii) ((CH₃)RSiO_{2/2})_b where R = -CH₂CH₂CH₂NH₂
- (iii) (C₆H₅SiO_{3/2})_c,

aminofunctional silicone resins comprising the units:

- (i) ((CH₃)₃SiO_{1/2})_a

(ii) $((\text{CH}_3)\text{RSiO}_2/2)_b$ where R = -CH₂CH₂CH₂NH₂

(iii) $(\text{RSiO}_3/2)_c$ where R = -CH₂CH₂CH₂NH₂

(iv) $(\text{C}_6\text{H}_5\text{SiO}_3/2)_c$,

aminofunctional silicone resins comprising the units:

(i) $((\text{CH}_3)_3\text{SiO}_1/2)_a$

(ii) $((\text{CH}_3)\text{RSiO}_2/2)_b$ where R = -CH₂CH₂CH₂NH₂

(iii) $(\text{C}_6\text{H}_5\text{SiO}_3/2)_c$

or

aminofunctional silicone resins comprising the units:

(i) $((\text{CH}_3)_3\text{SiO}_1/2)_a$

(ii) $(\text{C}_6\text{H}_5(\text{CH}_3)\text{SiO}_2/2)_b$

(iii) $((\text{CH}_3)\text{RSiO}_2/2)_b$ where R = -CH₂CH₂CH₂NH₂

(iv) $(\text{C}_6\text{H}_5\text{SiO}_3/2)_c$

(v) $(\text{SiO}_4/2)_d$

wherein a, b, c, and d are as defined above.

6. (Canceled)

7. (Currently Amended) A composition according to ~~any of~~ Claims 1–6 wherein a has a value of 0.1 to 0.3, b has a value of 0.2 to 0.4, c has a value of 0.2 to 0.5, d has a value of 0, 10 to 30 mole percent of silicon atoms contain aminofunctional hydrocarbon groups in units (i), (ii) or (iii), the –NH- equivalent weight of the aminofunctional silicone resin is from 150 to 350, 20 to 50 weight percent of unit (ii) is present in the aminofunctional silicone resin, 0 to 5 weight percent of unit (ii) are Me₂SiO₂/2 units in the aminofunctional silicone resin, and from 50 to 75 weight percent of silicon-bonded R groups are silicon-bonded aryl groups.

8. (Currently amended) A composition according to ~~any of~~ Claims 1–7 wherein Component (C) is selected from multifunctional primary polyamines, multifunctional secondary

polyamines, adducts of multifunctional primary polyamines, adducts of multifunctional secondary polyamines, anhydrides, or polyamides.

9. (Canceled)

10. (Currently Amended) A composition according to ~~any of~~ Claims 1–9 wherein Component (D) is selected from tertiary amines, phosphine compounds, imidazole compounds, diazabicyclo compounds, and their salts.

11. (Canceled)

12. (Canceled)

13. (Currently Amended) A composition according to ~~any of~~ Claims 1–12, wherein the composition further comprises at least one ingredient selected from plasticizers, pigments, colorants, dyes, surfactants, thickeners, heat stabilizers, leveling agents, anti-cratering agents, fillers, sedimentation inhibitors, ultraviolet-light absorbers, promoters, antioxidants, ultraviolet-light inhibitors, or fillers.

14. (Canceled)

15. (Currently Amended) A composition according to Claim 1 wherein ~~any of~~ Claims 1–14, wherein the –NH- (amine H) equivalent weight to acrylate or isocyanate equivalent weight ratio is typically from 0.8:1–1.2:1.

16. (Original) A coating composition obtained by a method comprising reacting:

- (A) 100 weight parts of (i) at least one compound containing at least one acrylate group or (ii) at least one compound containing at least one isocyanate group;
- (B) 3–300 weight parts of at least one aminofunctional silicone resin comprising the units:

$(R_3SiO_{1/2})_a$ (i)

$(R_2SiO_{2/2})_b$ (ii)

$(RSiO_{3/2})_c$ (iii) and

$(SiO_{4/2})_d$ (iv)

wherein R is independently an alkyl group, an aryl group, or an aminofunctional hydrocarbon group, a has a value of less than 0.4, b has a value of greater than 0.15, c has a value of greater than zero to 0.7, d has a value of less than 0.2, the value of $a + b + c + d = 1$, with the provisos that 3 to 50 mole percent of silicon atoms contain aminofunctional hydrocarbon groups in units (i), (ii) or (iii), the $-NH-$ equivalent weight of the aminofunctional silicone resin is from 100 to 1500, the aminofunctional silicone resin is in the form of a neat liquid, solution, or meltable solid, greater than 20 weight percent of unit (ii) is present in the aminofunctional silicone resin, less than 10 weight percent of unit (ii) are $Me_2SiO_{2/2}$ units in the aminofunctional silicone resin, and greater than 50 weight percent of silicon-bonded R groups are silicon-bonded aryl groups;

(C) up to 300 weight parts of at least one organic hardener; and

(D) up to 5 weight parts of at least one cure rate modifier.

17. (New) A composition according to Claim 1 wherein the $-NH-$ equivalent weight of the aminofunctional silicone resin is from 100 to 1000.

18. (New) A composition according to Claim 17, wherein component (A) is selected from urethane acrylates, acrylated fluorocarbons, soybean oil acrylates, epoxy acrylates, pentaerythritol triacrylate, glycidyl acrylate, isophorone diisocyanate trimers, isophorone diisocyanate, toluene diisocyanate, polyisocyanates, tetramethylxylylene diisocyanate, phenylene diisocyanate, xylene diisocyanate, 1,5-naphthalene diisocyanate, chlorophenylene 2,4-diisocyanate, bitoluene diisocyanate, dianisidine diisocyanate, toluidine diisocyanate, alkylated benzene diisocyanates, methylene-diphenyl-diisocyanate, 3,3'-dimethyl-4,4'-diphenyl-methane diisocyanate, cyclohexylene diisocyanate, 4,4'-methylenedicydohexyl diisocyanate, tetramethylxylyl diisocyanates,

OCN-C(CH3)2-C6H4C(CH3)2-NCO, isophorone diisocyanate, 1,4-tetramethylene diisocyanate, 1,5-pentamethylene diisocyanate, 1,6-hexamethylene diisocyanate (HMDI), 1,7-heptamethylene diisocyanate, 2,2,4- and 2,4,4-trimethylhexamethylene diisocyanate, 1,10-decamethylene diisocyanate, or 2-methyl-1,5-pentamethylene diisocyanate.

19. (New) A composition according to Claim 17 wherein R is independently selected from methyl, phenyl, or an aminofunctional hydrocarbon group having the formula $-R^1NHR^2$ or $-R^1NHR^1NHR^2$ wherein each R^1 is independently a divalent hydrocarbon radical having at least 2 carbon atoms and R^2 is hydrogen or an alkyl group.

20. (New) A composition according to Claim 17 wherein Component (B) is selected from aminofunctional silicone resins comprising the units:

- (i) $((CH_3)_3SiO_{1/2})_a$
- (ii) $(C_6H_5(CH_3)SiO_{2/2})_b$
- (iii) $((CH_3)RSiO_{2/2})_b$ where $R = -CH_2CH_2CH_2NH_2$
- (iv) $(C_6H_5SiO_{3/2})_c$,

aminofunctional silicone resins comprising the units:

- (i) $(C_6H_5(CH_3)SiO_{2/2})_b$
- (ii) $((CH_3)RSiO_{2/2})_b$ where $R = -CH_2CH_2CH_2NH_2$
- (iii) $(C_6H_5SiO_{3/2})_c$,

aminofunctional silicone resins comprising the units:

- (i) $((CH_3)_3SiO_{1/2})_a$
- (ii) $((CH_3)RSiO_{2/2})_b$ where $R = -CH_2CH_2CH_2NH_2$
- (iii) $(RSiO_{3/2})_c$ where $R = -CH_2CH_2CH_2NH_2$
- (iv) $(C_6H_5SiO_{3/2})_c$,

aminofunctional silicone resins comprising the units:

- (i) $((\text{CH}_3)_3\text{SiO}_{1/2})_a$
- (ii) $((\text{CH}_3)\text{RSiO}_{2/2})_b$ where R = $-\text{CH}_2\text{CH}_2\text{CH}_2\text{NH}_2$
- (iii) $(\text{C}_6\text{H}_5\text{SiO}_{3/2})_c$

or

aminofunctional silicone resins comprising the units:

- (i) $((\text{CH}_3)_3\text{SiO}_{1/2})_a$
- (ii) $(\text{C}_6\text{H}_5(\text{CH}_3)\text{SiO}_{2/2})_b$
- (iii) $((\text{CH}_3)\text{RSiO}_{2/2})_b$ where R = $-\text{CH}_2\text{CH}_2\text{CH}_2\text{NH}_2$
- (iv) $(\text{C}_6\text{H}_5\text{SiO}_{3/2})_c$
- (v) $(\text{SiO}_{4/2})_d$

wherein a, b, c, and d are as defined above.

21. (New) A composition according to Claim 17 wherein Component (C) is selected from multifunctional primary polyamines, multifunctional secondary polyamines, adducts of multifunctional primary polyamines, adducts of multifunctional secondary polyamines, anhydrides, or polyamides.

22. (New) A composition according to Claim 17 wherein Component (D) is selected from tertiary amines, phosphine compounds, imidazole compounds, diazabicyclo compounds, and their salts.

23. (New) A composition according to Claim 17, wherein the composition further comprises at least one ingredient selected from plasticizers, pigments, colorants, dyes, surfactants, thickeners, heat stabilizers, leveling agents, anti-cratering agents, fillers, sedimentation inhibitors, ultraviolet-light absorbers, promoters, antioxidants, ultraviolet-light inhibitors, or fillers.

24. (New) A composition according to Claim 17, wherein the –NH- (amine H) equivalent weight to acrylate or isocyanate equivalent weight ratio is typically from 0.8:1-1.2:1.

25. (New) A coating composition according to Claim 16 wherein the –NH- equivalent weight of the aminofunctional silicone resin is from 100 to 1000.